IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	PATENT
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HILL BRANSCOMB)	
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Application No.: 08/000,927)	
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Filed: January 6, 1993)	Group Art Unit: 2609
)	
For: APPARATUS AND METHOD FOR)	Examiner: M. Luu
ASSEMBLING CONTENT)	
ADDRESSABLE VIDEO)	

DECLARATION OF MICHAEL T. MacKAY
UNDER 37 C.F.R. § 1.132

I, Michael T. MacKay, hereby declare as follows:

1.   An expert with over 15 years of experience in the design, implementation and operation of multi-media environments, including computer graphics and video. A copy of a recent resume for me is attached hereto as Exhibit 1.

2.   Over the course of my career, I have been involved in the hiring and management of teams of engineers, and have developed a knowledge of the ordinary level of skill in the video and computer graphics arts. Although, the ordinary level of skill may be somewhat higher, the minimum skills required are a degree in electrical engineering or computer science with at least one year of experience in film, video, and graphics engineering.

3.   In connection with the above-identified U.S. patent application, I have been informed that the Patent Examiner has rejected certain claims in the application, on the basis that the application fails to provide an adequate written description of the invention. I have reviewed the application and claims. It is my opinion that all elements of the claims as described in the application, and that the description is sufficient to enable a person of ordinary skill in the computer graphics art to practice the invention.

4.   Particularly, the Examiner has stated:

The Applicant has failed to disclose the exact "means for associating tags with frames of video data..." as recited in claims 1 and 7. How is the "associating means" coupled to the storage means since the drawings do not show the "associating tag means" as specified in the claims. (Page 3 of the Official Action mailed April 30, 1993).

5.   The elements in claims 1 and 7 to which this rejection is directed, read as follows:

In Claim 1:

"means, coupled with the storage means, for associating tags with frames of video data in the plurality, the tags indicating the contents of the video images defined by the associated frames;"

In Claim 7:

"associating tags with frames of video data in the plurality, the tags indicating the contents of the video images defined by the associated frames;"

6.   In the specification, the "means for associating tags", and the step of associating tags with frames of video data is clearly described. In particular, in Fig. 4, step 401 reads "ASSIGN KEY TO EACH VIDEO FRAME". A person of ordinary skill in the art would readily understand that this results in association of a tag (key) with each video frame. Although the term "key" is used in the figure, those of skill in the art will understand that a key assigned with a frame would be considered a "tag".

7.   The process for generating the keys is described on page 11, lines 9-15.

8.   Further, on page 15, lines 13-15 of the specification, the step of "stamp keys on frames (or other recording methods)..." describes the associating of tags with frames of video data.

9.   In terms of the manner of implementing the tags with the video frames, the specification clearly describes how to make and use the system of tagging frames. Beginning at page 18, line 20, continuing to page 19, line 8, the application describes the use of an expanded SEMPTE time code structure to provide information which indicates the content of the frame.

10. Accordingly, the application describes a system in which tags are associated with frames of video, wherein the tags indicate the content of the frame to which they are associated. Further, the specification enables a person of ordinary skill in the art to create and use such tags.

11. Furthermore, the specification clearly shows how the

means for associating tags is coupled to the storage means. In particular, the machine generating the video frames stamps the frames of video with a tag. The associating means is a routine executed by the computer. Fig. 1 of the specification shows the computer 100 connected to the video storage 103 and to the camera position control 101. Thus, it is absolutely clear that the computer 100 which associates the tags with the frames of video data is coupled with the video storage system, and persons of ordinary skill in would unquestionably understand that connection based on a review in the specification.

12. The Examiner has also stated:

> "What exactly is the "associating position means", and how is this "associating position means" coupled to the "processing means" since the drawings do not show the "associating position means" as specified in the claims." (Page 3 of the Official Action mailed April 30, 1993)

13. This rejection is addressed at the following elements of claims 1 and 7:

In Claim 1:

> "means, coupled to the processing means, for associating positions in the content video image with addresses of storage locations storing corresponding frames of video data."

In Claim 7:
> "associating with data processing means the positions in the content video image with addresses of storage locations storing corresponding frames of video data."

14. The specification describes these elements with reference to Fig. 4, elements 402 and 403. This figure describes a computer algorithm by which a content image is generated using the keys that have been assigned to each video frame, and by which the video frames are then compiled for addressing in response to the keys. These two steps are standard computer processes which persons of ordinary skill in the art will clearly understand as a means for associating the position of a video frame in a content image with the content of the video frame based on the key. Thus, the application describes the means for associating positions, and enables a persons of ordinary skill to make and use such means.

15. The application also provides a clear example of an algorithm for creating the means for associating positions at page 15, lines 22 through page 16, line 8. Particularly, the algorithm is based on the use of a data base having a position in the content

image of a key, and associating a key to a video frame by addresses.
Thus, the position in the content image is associated with a key,
and the key is associated with a frame of data.

16.   In am informed that the Examiner is taking the position
that the "associating position means" is not shown in the drawings.
Fig. 4 illustrates a computer program for accomplishing such tasks,
and is therefore believed to show the claimed feature.   Furthermore,
it's clear that the computer program is executed by the computer
which includes a processing means.   Thus, the processing means in
the computer is associated with or coupled with the means for
associating positions, as all computer programs are coupled with
their host processor.

17.   I have been informed that the Examiner has also stated:

   "What exactly is the "means for accessing the
   frames of video data", and how is this "means for
   accessing the frames of video data" coupled with
   the "position selecting means" and the means for
   associating positions" since the drawings do not
   show the "means for accessing the frames of video
   data". (Page 3 of the Official Action mailed
   April 30, 1993).

18.   The means for accessing the frames of video data appear
in claims 2 and 6 in a means plus function format, and in claim 8 in
a process format.   Review of the specification reveals that the
means for selecting a position in the content video image is the
input device 111 shown in Fig. 1.   Page 7, line 14-line 18,
describes the use of the user input device 111, "such as a mouse or
track ball" to position a cursor icon 112 on the content image 106.
Thus, the user selects a position on the content image using an
input device as clearly described in the specification in the
drawings.

19.   The "means for accessing the frames of video data" in
Fig. 1 comprises a computer system 100.   This system is expanded in
Fig. 2, in which the computer 201 is used to control video disk
players 202 and 203.   The video disk players access stored frames of
video in response to the computer control as well known in the art.

20.   Thus, it is submitted that the application describes the
means for accessing frames of video, and the means for selecting a
position on the content image.   Further, the application enables
those of ordinary skill in the art to practice the invention
claimed.

21.   In summary, the invention described and claimed in the
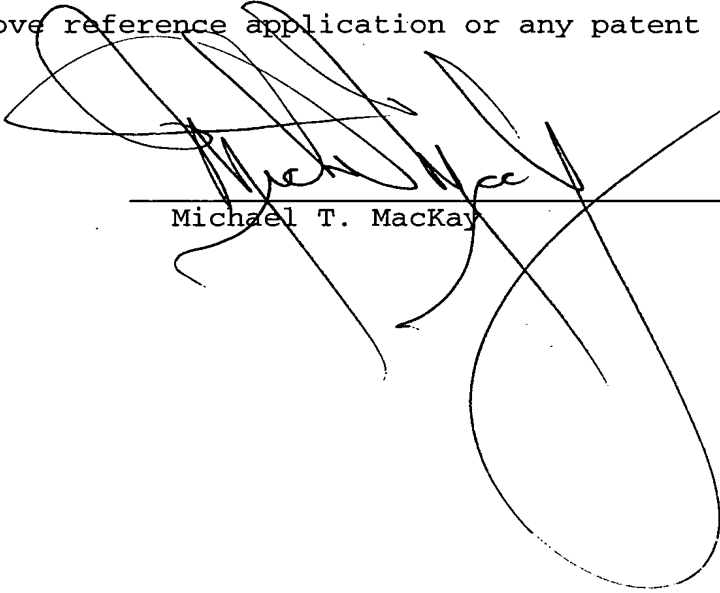above identified U.S. patent application uses programming techniques

well known in the art to accomplish the unique features described. It is based on using an associative link between a content image, and a key or tag indicating the content of a video frame associated with the tag. The processing control can be easily implemented using data base or table look-up techniques well known in the computer graphics art.

22. Overall, it is my opinion that all the elements claimed in the present application are described in the specification, and the description of such elements enables a person of ordinary skill in the art to practice the invention.

I hereby declare that all statements made herein of my knowledge are true and that all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the above reference application or any patent issuing thereon.

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Date

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Michael T. MacKay